

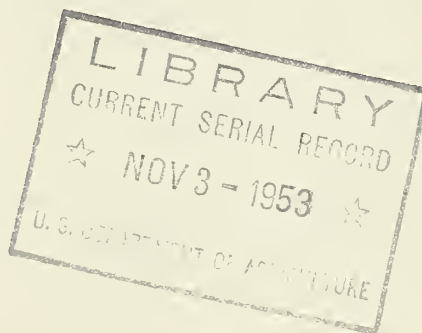
Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

ASM34
cop. 6

JULY 1953

MARKETING ACTIVITIES



U.S. DEPARTMENT OF AGRICULTURE
Production and Marketing Administration
Washington 25, D.C.

IN THIS ISSUE

DISPLAY IS THE THING

By Malvin E. McGaha Page 3

Fancy displays and intensive selling are broadening markets for fresh fruits and vegetables. Mr. McGaha of PMA's Fruit and Vegetable Branch, explains how it has come about.

WHAT HAS HAPPENED TO CONCENTRATED MILK?

By Eleanore J. Parker and Edmond S. Harris Page 7

Twice in 20 years what was thought to be a potentially great food product has had a "morning glory" career. Here's a survey of the reasons by two agricultural economists with the Dairy Branch of PMA.

ONE GOOD TURN. . .

By William H. Elliott Page 10

Promising results of the application of basic research to the grading and sorting of farm commodities are related by a member of PMA's Marketing Facilities and Research Branch.

LIVESTOCK MARKETING ON A "LARGE" SCALE

By C. L. Richard Page 12

Some of the "weighs" buyers and sellers of livestock are protected under the Packers and Stockyards Act, given by a member of the Livestock Branch, PMA, who helps provide the protection.

MEAT DEPARTMENT EFFICIENCIES

By Dr. Raymond W. Hoecker Page 16

Dr. Hoecker, Marketing Facilities and Research Branch, PMA, gives a plan for an efficient self-service meat department layout which evolved from work done under his direction by other USDA marketing specialists, discussed in earlier issues of MARKETING ACTIVITIES.

MARKETING ACTIVITIES

Vol. 16

No. 7

Address all inquiries to:
J. Grant Lyons, Editor,
MARKETING ACTIVITIES,
U. S. Department of
Agriculture,
Washington 25, D. C.

Material in this publication may be reprinted without special permission

A Monthly publication of the Production and Marketing Administration of the United States Department of Agriculture, Washington, D. C. The printing of this publication has been approved by the Director of the Bureau of the Budget (March 24, 1953). Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at a subscription price of \$1.75 a year (domestic), \$2.25 a year (foreign), payable by check or money order. Single copies are 15 cents each.

Display Is The Thing

By Malvin E. McGaha

You might think that tents, clowns, and pink lemonade are far removed from the prosaic job of selling fresh fruits and vegetables. But, don't be too sure. The basic appeal of bright color and attractive display can be adapted to the promotion of fresh produce sales.

Enterprising produce merchandisers - cooperating wholesalers and retailers - already are using sales promotion displays to spark retail sales nearly as effective in attracting customers as circus trimmings. What's more, their methods not only are boosting sales, they also are opening new markets for some fresh products.

In 1952, out in the Midwest, a retailer spurred on by his wholesale merchandiser, built a "super duper" display and during the week of October 13, sold 600 pounds of cranberries, though he had stoutly maintained that mid-October was too early in the season. He had not handled cranberries during that week in 1951. Concluded the retailer: "It's never too early to catch fish if you use the right bait."

Down in Louisiana a wholesaler agreed to test his merchandising strength by selling fresh Idaho prunes despite the fact that neither his retailers nor their customers were familiar with fresh prunes. His merchandising "know how" paid off to the tune of 4 carloads moved in 10 days. But, the big thing is that the retailers and their customers now are asking when Idaho fresh prunes will be in season again and the Idaho growers have an expanded market for their product.

With similar instances reported from other sections of the country, it's easy to see why the use of colorful promotional displays have become an important phase of the merchandising activity engaged in by wholesalers and retailers of fresh fruits and vegetables.

They are the result of participation in a program of training in merchandising, provided through an Agricultural Marketing Act contract, between the United States Department of Agriculture and the United Fresh Fruit and Vegetable Association. The program is conducted by the United Merchandising Institute, the training branch of UFFVA.

This promotional merchandising program is gaining disciples as increasing numbers of fresh produce wholesalers take advantage of the contract to organize merchandising departments and employ trained merchandising personnel to work with retailers in highly varied, consumer-interest stimulating activity to increase sales and consumption of fresh fruits and vegetables.



This display helped sell 226 lugs of grapes, 28 lbs. each, in a Coffeyville, Kansas, super-market.

To be sure, product promotion at the retail level is only one element of the wholesaler's merchandising program, but it provides opportunities galore for the wholesaler and retailer to exercise imagination, engage in the spectacular, and inject the element of excitement into self-service retailing. It serves to keep both wholesalers and retailers on the alert for ideas to create "buying impulses" in the consumer and changes the atmosphere of the retail fresh fruit and vegetable department from one of monotony to a "beehive of activity."

Why promote fresh fruits and vegetables?

Haven't the nutrition researchers discovered that these protective foods are essential to the diet and haven't they told consumers?

Didn't we hear somewhere that many of us are eating too much already? The answer to each of these two questions is yes, but nutritionists have also discovered that for a well balanced diet the average American needs to consume a considerably larger amount of fresh fruits and vegetables. Nutritionists also tell us that while a great many of us eat too much, we aren't eating the right things. We're not eating enough fresh fruit and vegetables.

If nutritionists and home economists have all those answers and have been continually striving to get them to consumers, how come we never made the necessary adjustment in our diet? Well, first off, we have to admit a lot of us weren't listening but maybe part of the answer lies in the relative amount of merchandising devoted to selling other products. Most of us are familiar with, say, point of sale advertising - that's those talking signs, posters, price tags, etc., placed on displays and in store windows to call attention of customers to merchandise. Until recently we haven't seen many of those used in advertising fresh fruits and vegetables. Yet, other food groups have been using them for years. How about newspapers, magazines, radio, television, - other foods do a lot of selling there too, don't they? Is there any wonder that fresh fruits and vegetables have been placed at a disadvantage? At least part of the answer lies in promotion.

Naturally, promotions of national scope require organization and unprecedented cooperation between all segments of the industry - growers, shippers, wholesalers, and retailers. They require a lot of advance planning for maximum participation and effectiveness. Under the AMA contract with USDA, the United Merchandising Institute is preparing the in-

dustry for effective merchandising of its products. Sales promotions locally and nationally, planned by industry groups and coordinated through U. M. I. are producing results.

Let's examine why and how the system works. It works because there now are specially trained people in the establishments of wholesalers and retailers throughout the United States and because there is a more sympathetic understanding of each other's problems by all members of the industry.

Prior to the inauguration some 5 years ago of the joint USDA-UMI program to build up a body of trained merchandising personnel, service representatives of producer groups lacked effective contact with wholesalers. Generally, the attitude of wholesalers was "what can you do for us?" Dealer service representatives of producer groups in attempting to cover a large territory with advertising and educational material, frequently, could do no more than leave the material with the "busy" wholesaler for distribution to retailers. Since the wholesaler had no one designated to carry on merchandising work the material frequently gathered dust in his warehouse.

Attempts to distribute promotional and educational material to retailers were often frustrated because many retailers did not recognize merchandising opportunities and had not been trained to participate in planned merchandising activity. In any event, the lack of supporting activity and the passiveness of retailers were stumbling blocks to efforts to improve merchandising. Under the new program there are no by-standers at any point in the distribution chain --- in the words of a famous comedian, - "everybody gets in the act."

In promotions of national scope U.M.I. acts as coordinator between producers and shippers on the one hand, and wholesalers and retailers on the other. The industry thus is a team in advance planning of promotional programs. The date for commodity promotion is selected; point of sale material is prepared and distributed; and newspaper, radio, and television advertising and cooperation are arranged.

At the wholesale level, merchandising personnel through bulletins and personal contact alert the retailers. Novel ideas are developed for displays, and activity is planned for stimulating consumer interest. To provide further incentive for all-out effort, prizes are offered for wholesaler sales personnel, retailers, and consumers.



Tangerine display in Memphis, Tennessee store

All sorts of ideas or "gimmicks" have been used for attracting customers and stimulating sales. There have been "carload" sales of potatoes, "trainload" sales of tangerines, and "boat-load" sales of bananas. Customers have been attracted by "pineyapple" displays in which pine trees were hung with apples; grape arbors hung with grapes on real grape vines; combination displays of canning equipment with peaches and ham hocks with cabbage; and guessing contests, just to mention a few. Some retailers have brought the whole store into the promotion with suitable costumes calling attention to the item or items being promoted.

Just to cite a few additional examples of accomplishments:

In the race to see who could show the greatest increase in tangerine volume during the 1953 promotion, wholesaler entries averaged sales 3 times that of the comparable week in 1952. This they accomplished through effective use of their merchandising personnel, in cooperation with the industry, working with retailers trained in the USDA-UMI classes in fresh fruit and vegetable merchandising.

In 1952, in the formal promotion contest for California-Arizona cantaloups, 24 wholesalers, who submitted entries reported sales of $99\frac{1}{2}$ cars of cantaloups, a whopping total of approximately 20,000 crates more than the $30\frac{1}{2}$ cars sold in the comparable week of 1951. Spurred on by participation in the 1952 promotion, one Kansas retailer alone sold 146 crates or more than half a carload of cantaloups. In Indiana, a salesman-merchandiser sold nearly a carload (288 crates) in comparison with fewer than 20 crates in 1951. His wholesaler employer's cantaloup sales for the period were 4 times those of the same period for the previous year.

During the 1952 grape promotion 26 wholesalers reported 39 cars (approximately 40,560 lugs) more grapes sold than in the comparable week of 1951. In the 1951 promotion, sponsored by the industry through the United Merchandising Institute, one Salt Lake City retailer sold 399 lugs of 28 pounds in a single week.

Participating wholesalers and retailers throughout the United States are enthusiastic over these results, to say nothing of shippers and producers, an increasing number of whom are making plans to join the promotional parade as they see the advantages of using such merchandising to move peak-of-season supplies.

Not all of the promotions engaged in by wholesalers and retailers are national in scope. Because heavy supplies of fresh fruits and vegetables frequently are localized, many wholesalers base promotional plans on items in good supply locally and systematically feature 1 to 4 items each week. Thus promotion becomes an integral part of the wholesaler's, and his retailer customer's, business and serves to maintain the enthusiasm of both at a high level throughout the year. Yes sir, display is the thing in self-service retail selling, but few discount the value of enthusiastic salesmen. Promotional merchandising provides the fanfare that creates enthusiasm and increases the sale and consumption of fresh fruits and vegetables to the benefit of producers and consumers, as well as shippers and wholesalers.

What Has Happened To Concentrated Milk ?

By Eleanore J. Parker and Edmond S. Harris

The second attempt in the past twenty years to market bottled concentrated milk in competition with whole milk in city markets appears to have failed. At least this is the outlook for the time being, according to a survey of sales of the product made by the Dairy Branch of the Production and Marketing Administration.

Concentrated milk -- first tried out in several cities during the early 1930's -- aroused considerable interest among consumers and members of the food trade when it was reintroduced in 1950 and 1951. This is not surprising, as the product has several appealing features. In the first place, it is processed under high vacuum and low heat and, unlike evaporated milk, it retains the full flavor of the fresh whole milk from which it is made. When it is recombined with two parts water it is for all practical purposes the same as fresh milk.

Consumers have the advantage of a product which can be carried from the store more easily and which requires only one-third the storage space. Although concentrated milk, unlike evaporated milk, is not sterile it is pasteurized and it keeps longer than whole milk. Consumers do have the inconvenience of diluting the product for use as milk but the fact that they can control the proportions of water to the concentrate, offers some advantage. One part or less of water provides a richer milk for cereals or fruit and it can be used full strength for coffee.

Sales Fall Off

The Dairy Branch survey of sales of concentrated milk covered all of the city markets operating under Federal milk marketing orders where the product has been introduced. Lima, Ohio, where the sales of concentrated milk began in December, 1950, was the first of these markets to try the product. The others were Boston, Worcester, Fall River and Lowell-Lawrence in Massachusetts; Minneapolis-St. Paul; and Philadelphia.

Peak sales of concentrated milk generally occurred within the first few months of its introduction. The typical trend was for sales to fall off rather sharply to insignificant proportions during succeeding months and to terminate altogether within one or two years.

Greatest popularity of concentrated milk was achieved in Lima and Boston where milk used in making the product at one time reached 4.8 and 2.4 percent respectively of whole milk sales. Even in these markets,

however, consumer interest faded so that today no sales of concentrated milk are reported in Lima and less than a tenth of 1 percent in Boston. Peak sales of concentrated milk in the other five markets surveyed were never high enough to use 1 percent of milk sold for fluid use and in only one of these, Philadelphia, are any recent sales reported.

Factors in Sales Decline

Experience, therefore, indicates that at present price relationships between concentrated and whole milk, city consumers do not maintain an interest in bottled concentrated milk, once their initial curiosity has been satisfied. In the markets surveyed, the price of a quart of concentrated milk was about three times that of a quart of whole milk so that consumers would not save money in making whole milk out of the concentrated product. Apparently the other advantages -- convenience of carrying and storing, longer keeping qualities, and its use as a substitute for cream -- are not sufficient to offset the inconvenience of mixing with water for use as whole milk.

Because concentrated milk is not a sterile product, local health officials believe it should be made from milk produced under the same conditions as milk which is distributed as bottled milk. This prevents any reduction in the cost of milk to the distributor. If the sanitary requirements of a city permitted milk produced at considerable distance from the city to be used, the use of concentrated milk might result in some saving for consumers as the high cost of transporting whole milk is one of the important factors causing milk distributors to prefer a close-in milk supply. The greater use of concentrated milk might make it possible for cities in deficit dairy regions to tap more distant sources of supply in the mid-west where the cost of producing milk is somewhat lower.

As matters now stand, milk used in making bottled concentrated milk is sold to distributors at the same price as milk which is sold to them for distribution as bottled whole milk. Where classified price plans are used, as in markets operating under Federal milk orders, concentrated milk, like whole milk for fluid consumption, is a Class I product -- that is, it is in the top price class. The price at which concentrated milk is sold by distributors does not give consumers an opportunity to save money by diluting with water to make their own whole milk. Some economies in distribution of concentrated milk, as compared with whole milk, are possible but these are at least partly offset by the cost of processing the product.

Several factors may influence distributors in their policies of pricing concentrated milk. In the first place, the marketing of concentrated milk is an experiment which involves certain initial costs for processing equipment, advertising and selling. It is understandable that distributors would not wish to market the product at a price which would be too low to permit them to recover part of these initial costs. Also, when concentrated milk is used to make whole milk in the home, it displaces sales of bottled whole milk in stores or on home delivery routes which might encourage some distributors to price the product in line with the price of an equivalent amount of whole milk. It is possible that a

distributor may yet devise the price and sales policies which will put this product over in some market. Thus far, no one has succeeded.

Other Outlets Seen for Product

While the immediate outlook for sales of bottled concentrated milk to city consumers is not bright, other promising markets for the product are being developed. One of these is the delivery of concentrated milk to widely separated homes in rural areas. Here, where daily or even every-other-day delivery of whole milk is too costly, dealers may find it profitable to distribute concentrated milk and other dairy products one day a week. Delivery trucks can carry three times as much milk in concentrated form and housewives find that under refrigeration the concentrated product keeps sweet and fresh tasting for a long time.

A successful experiment in such deliveries, encouraged by the Dairy Department of Iowa State College, has been reported. Five rural routes averaging 100 miles in the vicinity of Ames, Iowa, are covered each week by one man. Each route serves about 75 farm or other rural families one day a week. Many of the farm families served were previously dependent for milk upon the maintenance of a family cow, a costly and uncertain source of sale milk on farms specializing in corn, hogs, or beef cattle. This new use of concentrated bottled milk may open up new fluid outlets for milk in other rural areas.

Concentrated milk is also finding outlets for use on ships and it should become increasingly popular for use in areas where local supplies of milk are not available. Personnel of the U.S. Armed Forces at stations far from the United States are being supplied with milk in increasing amounts through regular deliveries of fresh or frozen concentrated milk at their bases. Reports of one Navy Procurement Officer are that fresh concentrated milk can be kept in good condition for at least two weeks. One instance is reported of concentrated milk stored on board a submarine remaining fresh and palatable when reconstituted after five weeks.

It may be concluded that while there appear to be no immediate prospects for appreciable sales of concentrated milk for consumer use in city markets, the product may be expected to find increased usage where its concentrated form, its good keeping qualities, and fresh flavor give it advantages over whole milk or evaporated milk.

Sales of concentrated milk in milk markets under Federal orders, December, 1950 - April, 1953

Market	Month introduced	Number of months sold	Peak sales	
			Number of months after introduction	Percent of all milk sold *
Lima, Ohio	December 1950	7	2	4.80
Boston, Massachusetts	March 1951	26**	2	2.40
Worcester, Massachusetts	March 1951	25	3	.79
Fall River, Massachusetts	April 1951	13	3	.15
Lowell-Lawrence, Massachusetts	April 1951	20	4	.40
Minneapolis-St. Paul, Minnesota	August 1951	18	7	.28
Philadelphia, Pennsylvania	November 1951	18**	13	.80

* Milk used to make concentrated milk as percentage of whole milk sold in marketing area
** A small amount of concentrated milk sold in April, 1953, last month for which reports are available.

Source: Computed from reports of Market Administrators

One Good Turn...

By William H. Elliott

The old saw about one good turn deserving another now has been applied through research to the job of visually sorting and grading fruits, vegetables, and some other products. At least, this may be an apt way of describing labor-saving methods of this type of grading in which these products approach the sorter or grader while turning over and over and around and around so as to expose all of the surface of each individual item while it is within vision and reach.

Research to determine the proper speeds of translation and rotation, which involved the use of a new type of grading table on which variable speeds could be obtained, was conducted by the University of California under an Agricultural Marketing Act contract with the U.S. Department of Agriculture. Field tests in fruit packing plants have indicated that application of the results of this research can bring substantial savings in the amount of labor required for this type of grading as it is presently done. For instance, labor for sorting lemons can be cut by about 75 percent, for oranges about 67 percent and for potatoes, 15 percent.

Most agricultural products produced commercially are graded, sorted or otherwise segregated in the area in which they are produced or processed so that each grade or size of a particular commodity is channeled into its best use. These sorting operations require a great deal of labor, which often is difficult to obtain during harvesting periods and which is becoming increasingly costly. Studies in certain packing houses have shown that such operations can account for as much as 25 percent of all hourly-rate labor and 15 percent of total labor costs.

It is important, however, that this grading be done, and accurately, to protect growers and handlers of farm products. In many packing houses grading belts do not present the product to sorters so that its entire surface is visible. As a result, graders must either rotate the product on the belt or pick it up for examination. This slows down grading rates and increases labor requirements.

Seeking improvements, USDA entered into a contract with the Institute of Engineering Research, University of California, which already had done some preliminary work in the field, to determine and evaluate certain research principles which, if followed, would reduce labor requirements and maintain or increase sorting efficiency.

Since it already was known that rotation of a product as it passes the grader improves the possibility of a defect being observed, the problem was to determine what combinations of speed of motion past the sorter and what rotation motion as it passes the sorter would give the de-

This is a test set-up of the grading table using lemons. The 36-inch high table permits working either standing or sitting. The $\frac{1}{2}$ -inch diameter rollers, spaced 4 inches apart, are mounted between two endless chain conveyors approximately $1\frac{1}{2}$ inches above the conveyor belt, and are driven by a motor and variable-speed-gear drive. The conveyor belt, 20 inches wide, also is driven by a motor and variable-speed-gear drive. The roller and belt drives may be independently set permitting combinations of the speed at which the lemons pass the grader and the amount of rotation - over and around - as they move along. Speed of the rods determines forward movement rate. The belt, which can be set in variations of forward and reverse, determines the rotational speed, hence the revolutions of the lemons per foot for a given rod setting.



sired sorting efficiency and lowest labor requirements. Such other variables as shape of inspected product, direction of approach to grader, number of rows of product presented simultaneously, number of revolutions per foot of movement past the sorters, and other factors were tested under laboratory conditions using a specially designed grading table such as that shown above. In the laboratory tests wooden specimens were used, shaped and painted to resemble oranges, lemons and potatoes, with defects of various kinds painted on the surfaces. Real produce would have been injured through repeated handling and accurate comparisons of efficiency in the several sorting tests made would have been impossible.

Using four rows of ellipsoid (lemon-shaped) specimens on the grading table, it was found that the most efficient sorting resulted when they were revolved over and around 3 times during one foot of forward movement and when they move directly toward the sorter and not past her from the side as shown above. A sorting rate of 3 minutes per 1,000 specimens was found to be better than a faster rate of 2 minutes for the same number. With spheroids (orange-shaped) the best speed of rotation was found to be 1.53 revolutions per foot of forward movement, with 4 rows moving directly toward the sorter providing the most efficient grading. These findings were applied in the field tests in packing houses where the possible savings in labor for grading of lemons, oranges, and potatoes reported above were determined.

Additional tests have been recommended to further check the validity of the laboratory data, to determine the best application of the data to various types of products, and to explore application of the findings to color sorting, which is important in fruit grading. A report on the study, "Visual Inspection of Products for Surface Characteristics in Grading Operations," is being published for distribution in the near future.

Livestock Marketing

On A Large Scale

By C. L. Richard

Since ancient times when men carried the meager products of their primitive agriculture to village trading centers for barter or sale, WEIGHT, as a measure of quantity, has been the universal basis of trade and the balance or the weighing scale has been an essential feature of the market place.

Livestock, the principal product of modern agriculture, is also bought and sold by weight -- by live weight, on the hoof -- and livestock scales are indispensable facilities at the Nation's terminal stockyards, rural auction markets, and packers' processing plants or buying stations where livestock is sold for slaughter.

In volume and in value, marketing of the annual crop of meat animals may be characterized as a large-scale operation for it involves movement of well over 100 million cattle, calves, hogs, sheep, and lambs, worth some nine-billion dollars, from innumerable farms and ranches to many market outlets. Literally too, all marketing transactions of sale and purchase may be said to be conducted, or at least consummated, on a large scale since, to handle the wide range of individual livestock consignments, the weighing facility must usually be of sufficient size to accommodate as many as 30 head of cattle in one lot and of adequate capacity to weigh as much as 30,000 pounds in one draft.

The greater part of livestock sold for slaughter in the United States is marketed at "posted markets" which are subject to the Packers and Stockyards Act, a Federal statute enforced by the Packers and Stockyards Division of the Livestock Branch, Production and Marketing Administration, USDA. Regulations issued under the Act include particular requirements designed to assure that each livestock lot bought or sold by market patrons is weighed impartially and correctly, on scales of proven accuracy, and that the true weight value of each draft is recorded to form the basis of financial settlement between buyer and seller.

Accurate scales are the primary requisite at the "posted markets" operating under the Packers and Stockyards Act. Each of the 850 livestock scales in use at the 66 "posted" terminal markets and 262 "posted" auction markets is thoroughly tested at intervals of not more than six months with standard weight test loads in amounts equal to any livestock load which may be weighed. The Tolerance Code, under this Act, specifies that each scale, when tested shall be accurate within $1\frac{1}{2}$ pounds per thousand pounds, or .15 percent, a more exacting requirement than is demanded of large-capacity scales in any other field of commercial weighing.

Scales which fail to meet this accuracy standard must be adjusted, repaired, or otherwise corrected and must be retested and proven accurate before their use is resumed. Of approximately 10,000 tests conducted under Division supervision during the past five years there has been only one in which a weighing inaccuracy of as much as one percent developed under a representative test load.

Accurate scales do not constitute a guarantee of accurate weighing or correct weight records. There is always the human element. The scales are manually operated and careless procedure by a weigher, his failure to comply with official weighing instructions, or his desire to favor or injure some market patron may result in weighing inaccuracies ranging from minor deviations of a few pounds in the case of a single animal to amounts as great as thousand pounds or more in the case of a large draft.

To prevent, or at least minimize, inadvertent weighing errors, weighers are required to comply, in all phases of their weighing operations, with detailed official instructions which define exact procedure for periodically balancing the empty scales, for determining the weight of livestock drafts, for recording weight values, and for otherwise assuring the integrity of derived and recorded weight values. At terminal markets where several scales are in use regulations require that individual weighers shall be "rotated" in their scale assignments at stated intervals so that they will not be likely to be influenced by livestock buyers or sellers who utilize one certain scale and who may seek to obtain the favor of incorrect weights.

Printed Record of Weight

Recording the weight of each livestock draft in permanent form is an important part of the weighing procedure. All scales at livestock markets posted under the Act are equipped to record weights in printed form. As the weight of each draft is established the weigher inserts in a slot of the weighbeam assembly a scale ticket and then presses a lever which prints this weight upon the ticket. These scale tickets are the primary source records from which are computed payments to livestock producers by commission firms or by packers or other buyers; as such they have status comparable to that of a certified check for they are actual certificates of weight upon which payment will be made. For purposes of control, scale tickets at "posted" markets are required to be serially numbered for identification, to be signed by the weigher, and to record the full details of livestock species, count and ownership; it is also required that they be retained as permanent records of the market.

Except in the State of Minnesota where livestock is weighed at "posted" public markets by State employees, weighing is performed by stockyard employees who are expected to function impartially without regard to ownership or financial aspects of sale and purchase. Generally speaking, weighers may be relied upon to perform their important duties impartially and conscientiously. However, despite measures of control and regulation there are occasions when an unscrupulous livestock owner, buyer, or speculator may induce a weigher to favor him by issuing false records of weight. Usually this is accomplished by the weigher manipulating

the printing accessory on the scale to register a lesser or a greater weight value than the true amount.

To discover instances of incorrect weighing, or weight recording or to prevent those practices, the Packers and Stockyards Division has developed and perfected a variety of surveillance and detection methods which it employs as circumstances may require. When weighers are found to be performing their duties carelessly, in violation of instructions, or in a manner indicating need for special instruction, they and their employers are advised of the facts and means are taken to improve weighing procedure. When there are indications of deliberate incorrect weighing or weight recording, thorough investigations are made to obtain the facts. If the findings warrant, formal proceedings are instituted charging the market operators or others involved with violations of the Act.

It would be incorrect to presume that livestock market operators, weighers, speculators or other market patrons are generally dishonest to that weighing is commonly incorrect. Nevertheless, the history of investigations and proceedings conducted under the Packers and Stockyards Act in connection with incorrect weighing demonstrates that opportunities for the practice are ever present and that constant control must be exercised to maintain livestock weighing standards at a high level.

Aside from the less serious weighing inaccuracies which may be attributed to weigher negligence, carelessness, disregard of instructions or other inadvertent acts, there are some questionable traditions and habits of thought which adversely affect desired weighing integrity. For example, one hears it stated often that "the buyer should get the benefit of the doubt" in weighing livestock; a philosophy which would work constantly to the disadvantage of the farmer unless prevented. Weighers at auction markets and at packing plants have been observed to persistently balance the empty scale with a "low beam" and weigh loads with a "high beam," a practice which materially benefits the buyer.

False Weight Methods

Weighers desiring to favor a neighbor, relative or friend at an auction market have been known to balance a scale incorrectly before weighing a draft so that a buyer or seller observing the weighing will assume the indicated and recorded weight is correct, although it may actually favor one party to the transaction. Adroit manipulation of the weighbeam balance ball or a "sleight-of-hand" movement of the weighbeam poise, even in the presence of an intent observer, may occur without detection and cause a substantial alteration in indicated or printed weight.

Cases have been discovered in which some auction market operators, desirous of attracting buyers to their market, have let it be known that weighing will be performed so as to benefit buyers; these operators then personally weigh the livestock "light" or privately instruct their weighers to do so. There have been instances when speculators destroyed the scale tickets issued to them, obtained blank tickets and printed fictitious weight values on the latter for use in collecting payment.

As an example of the need for supervisory control over livestock market weighing there may be cited some investigations and subsequent proceedings conducted during the past 3 years. At two terminal public stockyards it was found that there existed an organized conspiracy whereby certain weigher habitually favored several livestock speculators by falsifying the recorded weights of livestock drafts purchased or sold by the latter. To obtain evidence proving the conspiracy and the fraudulent weighing it was necessary, in cooperation with the stockyard management officials, to utilize specially designed electronic instruments which produced, without the knowledge of weighers or other individuals, data enabling the Division to determine the nature and extent of weighing frauds and the identity of the individuals involved. In one such investigation the evidence thus obtained proved that more than 20 weighers were falsifying scale tickets to favor more than 50 individual livestock speculators; the amount of weight fraud on individual drafts ranging from 100 pounds to more than 1,000 pounds.

So positive was the proof of deliberate false weighing that a majority of the weighers admitted their participation in the conspiracy, named their speculator associates, and confessed that they had received regular money payments for weighing incorrectly. Needless to say, they were discharged. In subsequent formal proceedings 58 speculators were suspended from operation at the market. More recently 13 of the speculators and seven of the weighers, as a result of action instituted by the Federal Department of Justice, have been indicted by a Federal grand jury and face trial in the near future. It has been estimated that the fraud conspiracy thus exposed and eliminated represented a million-dollar-a-year "racket."

There are some precautionary measures which producers or buyers of livestock can take to assure themselves of correct weight: They may insist that the empty scale be balanced, the livestock weighed and the weight recorded in their presence. They can request a carbon copy of the original scale ticket or that any given draft of their livestock be reweighed.

At a posted market, in case of doubt or controversy, a complaint can be filed with the local USDA representative who supervises the Packers and Stockyards Act. He will conduct an investigation and, if circumstances warrant, arrange appropriate compensation for a weight discrepancy. Buyers or sellers of livestock at markets not under Federal supervision, and producers selling livestock direct to packers at plants or buying stations of the latter, can safeguard their interests by ascertaining whether the scales have been tested recently with adequate loads and by responsible agencies to prove their accuracy.

Livestock producers not present or represented at the time their livestock is weighed for sale may take the precaution of having it weighed, before consignment or in transit, on a scale of proven accuracy. Buyers of livestock who question the weight of livestock purchased may weigh purchased lots on dependable scales of their own or of a public weighing station. Packers doubtful of the weight of a purchased lot of livestock may compare the "dressing yield" of the questioned lot with corresponding yields from similar lots of known weight.

Meat Department Efficiencies

By Dr. Raymond W. Hoecker

Through improvements in layout, methods, and equipment, USDA marketing specialists have been able to increase employee output in 7 self-service meat markets. In these stores where the improvements were tested, sales per man-hour were boosted an average of 27 percent. Typical of the changes made in meat department layouts are those shown in the "before and after" drawings on the opposite page.

The improved meat department arrangement is the result of a series of studies by the Marketing Facilities and Research Branch, Production and Marketing Administration, USDA, designed to increase meat market productivity through development of improved methods, equipment and layout. These layout diagrams are a sequel to an article on the research project in the May 1953 issue of *MARKETING ACTIVITIES*. An explanation of the layout drawings follows:

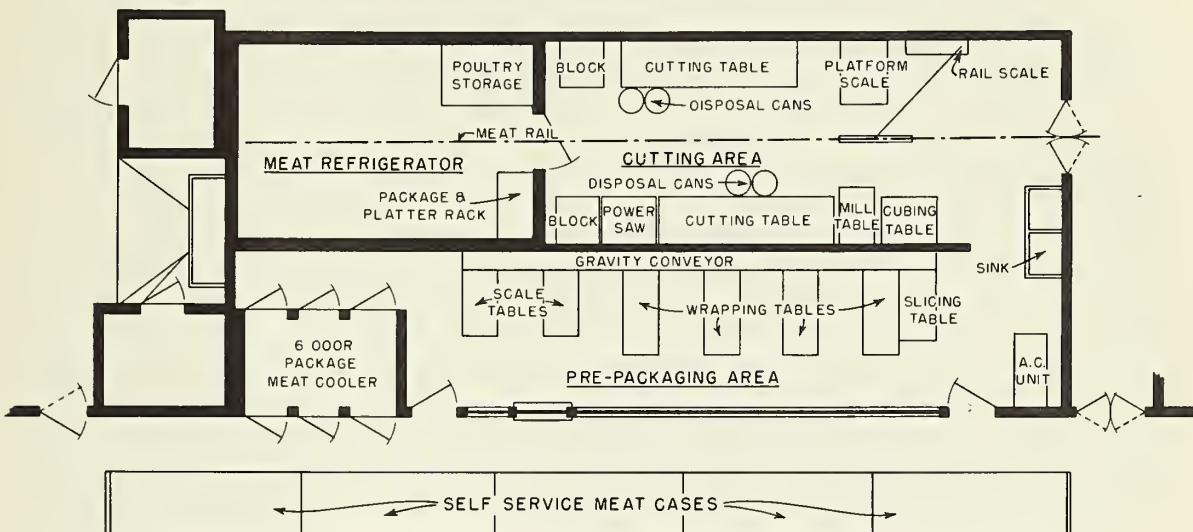
Conventional Meat Market Layout

This is a typical set-up of a 100-percent self-service meat market. Beef quarters are brought in on an overhead rail, broken down into whole-sale cuts, and stored in the cooler until needed. Then they are brought to the power saw, broken down into retail cuts, trimmed and panned. The meat cutter obtains and codes proper labels, places them on the pan, and takes the pan to the end of the conveyor. The second meat cutter, located across the room, must travel a greater distance to the conveyor to dispose of his product. The wrapper obtains a pan of the product and places it on the right side of her wrapping table. She boards, wraps, and places the wrapped product in an empty pan on the left of her table. When the pan of wrapped product is filled it is placed on the conveyor for movement to the scale. (At times, the conveyor holds pans of wrapped and unwrapped merchandise.) The pricer obtains the pan, places it on the left side of the pricing table, sets the tare and price per pound on the scale and works from her left to an empty pan on her right. After weighing and pricing the pan of product is carried by hand to the display cases through a door which opens against the flow of product.

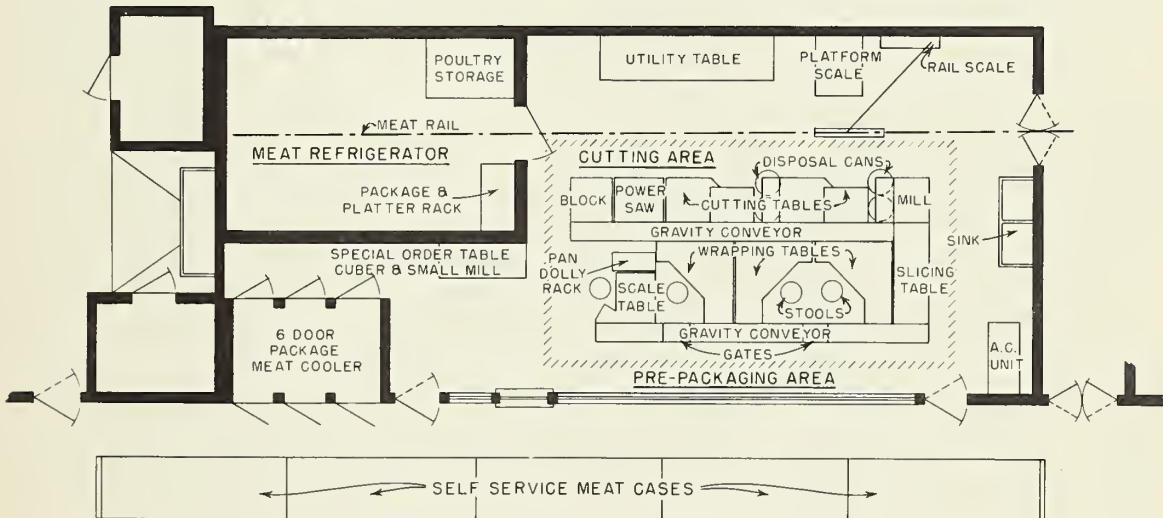
Improved Meat Market Layout

This drawing shows the new equipment and new arrangement of the meat department, with the wall between the cutting area and prepackaging area removed. Note the new cutting tables and point of product disposal for both meat cutters to a conveyor immediately adjacent. (Only unwrapped merchandise is moved on this conveyor.) The new wrapping tables have this conveyor on one side and another conveyor on the other side for

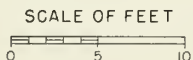
wrapped product only. The second conveyor has a gate so wrappers can enter and leave their stations and stools are provided. The wrapped product conveyor automatically positions pans to the right of the pricing operator. Using a separate label printer and a scale with a newly designed tare attachment, the pricer works from her right to a pan dolly rack on her left. A swinging door leads to the display cases and 6 pans of product can be moved on the pan dolly in one trip.



STORE-A CONVENTIONAL MEAT MARKET LAYOUT



STORE-A IMPROVED MEAT MARKET LAYOUT



The equipment, methods and layout installed in this particular market made possible a permanent reduction in personnel which resulted in increased sales per man-hour amounting to 31 percent.

Marketing Briefs

(The program announcements summarized below are more completely covered in press releases which may be obtained on request from the Office of Information, U. S. Department of Agriculture, Washington 25, D. C. by citing the code number given at the end of each item.)

Cotton.--Physical standards for Good Middling (White) and spotted COTTON are being proposed by USDA. Official standards for both are now descriptive. The physical standard for Good Middling is proposed to become effective in July 1954, while that for spotted cotton is proposed for a field trial for a period of a year or longer to determine if it is practical. (USDA 1441-53)... CCC loans on 1952-crop upland cotton maturing July 31, 1953 will be carried through July 31, 1954 to provide producers additional time to redeem loan cotton. (USDA 1469-53)... Price supports for the 1953-crop of cottonseed on a basis reflecting 75 percent of parity as compared with 90 percent last year have been announced. (USDA 1461-53)... Terms and conditions under which USDA will offer to buy cottonseed oil, cake or meal and linters from crushers to implement the 1953-crop support program also were announced. (USDA 1601-53)... Changes in the linters factor in grades for cottonseed have been proposed by USDA. (USDA 1606-53)... Sale of 78,440 pounds of Kenaf fiber (jute substitute) produced for USDA under a defense program was made by CCC. (USDA 1539-53)

Dairy.--Details of new dairy product import controls provided for by Presidential proclamation under Section 22 of the AAA Act are available as USDA Import Regulation 1, from PMA. (USDA 1558-53)... Through mid June nearly 25 million pounds of nonfat DRY MILK solids had been made available by USDA for foreign relief. (USDA 1517-53)... Earlier, distribution of a similar amount of the product to school lunch programs, charitable institutions and other eligible outlets was announced. (USDA 1404-53) Disposal through salvage sale of 256,650 pounds of flood damaged CCC BUTTER has been ordered by USDA. (USDA 1472-53)... Contracts for repackaging 20,327,200 pounds of BUTTER acquired in price support operations into one pound prints have been let by USDA. (USDA 1593-53)... USDA has asked bids on 13 million pounds of processed CHEESE (USDA 1573-53)... Additional sales of mixed grades of BUTTER below US Grade B have been announced. (USDA 1498-53)... Action was taken during the past month on the following milk marketing orders: An order has been recommended for CENTRAL MISSISSIPPI. (USDA 1445-53). Changes have been made or proposed for CLEVELAND, (USDA 1538-53), ST. LOUIS, (USDA 1453-54), MINNEAPOLIS-ST. PAUL, (USDA 1518-53), and DAYTON-SPRINGFIELD, (USDA 1602-53). A proposed change in the QUAD CITIES order has been denied. (USDA 1406-53).

Fats and Oils.--Principal provisions of the price support program for the 1953-crop of PEANUTS, which will be at a national average level of not less than \$237.60 per ton, have been announced. (USDA 1423-53)

Fruits and Vegetables.--Revised standards have been announced for canned cream style CORN. (USDA 1478-53)... Grade standards have been proposed for concentrated ORANGE JUICE, both for the canned product and such juice for manufacturing. (USDA 1567-53)... Revised standards for fresh

TOMATOES also have been proposed. (USDA 1568-53)...The following actions have been taken on marketing agreement and order programs: Members and alternates have been named for the RAISIN Administrative Committee (USDA 1454-53), the Pacific Coast WINTER PEAR Control Committee (USDA 1592-53) and the PECAN Administrative Committee and the Handlers Advisory Council (USDA 1456-53). The California DRIED PRUNE marketing order and agreement is to be continued in effect. (USDA 1471-53). Amendment of the California TOKAY GRAPE marketing agreement has been recommended by USDA. (USDA 1489-53). Similar action is proposed for the California-Arizona LEMON marketing agreement and a marketing order has been recommended for California-Arizona NAVEL ORANGES. (USDA 1596-53). Amendments to the Colorado PEA and CAULIFLOWER order have been tentatively approved. (USDA 1407-53).

Grain.--Marketing quotas for the 1954 WHEAT crop, which will have to be approved by two-thirds of the Nation's wheat farmers in a referendum to be held later, have been announced by Secretary of Agriculture Ezra Taft Benson. (USDA 1561-53)...Special "distress" loans on wheat in areas where storage facilities are not available have been announced by USDA (USDA 1459-53 and 1527-53)... Wheat farmers have been urged not to sacrifice their 1953-crop since price support and "distress" loans are available. (USDA 1512-53)... Price support for 1953-crop wheat has been set at a national average of \$2.21 per bushel. (USDA 1544-53)... Sales of CCC stocks of wheat have been discontinued. (USDA 1475-53)... USDA has offered to buy additional grain bins (USDA 1412-53) and announced that loans for drying equipment will be continued another year. (USDA 1403-53)... Export allocations on rice will be continued past June 30, 1953, when they were scheduled to end, (USDA 1468-53) and allocations for exports through December 1953 have been announced. (USDA 1588-53)... Revision of U.S. standards for dry peas, split peas, and lentils have been announced. (USDA 1425-53).

Livestock.--Several actions have been taken by USDA in connection with the cattle price situation and particularly the effect of the drought in the Southwest. Secretary Benson has urged cattlemen to carefully consider their long-run plans, stressing that by rushing cattle to market which they could hold they may be unnecessarily cutting their incomes. (USDA 1600-53). Feed molasses has been made available in the drought area. (USDA 1585-53). Purchases of beef products by USDA through the end of June were about 11 million pounds. (USDA 1581-53). Drought disaster committees were named for Texas and Oklahoma. (USDA 1579-53). Feed supplies were made available to drought-stricken farmers at reduced prices. (USDA 1571-53). USDA announced it would step up beef purchases. (USDA 1556-53). Railroads moved to back up drought relief measures. (USDA 1551-53). Counties eligible for "disaster relief" were named in Texas and Oklahoma. (USDA 1541-53). Drought committee named to confer with USDA June 26. (USDA 1493-53). Invitation to drought conference sent June 22. (USDA 1474-53)

Sugar.--Under Secretary of Agriculture True D. Morse was named U. S. chairman of a delegation to the International Sugar Conference in London. (USDA 1609-53)... Volume I of a two-volume publication "Sugar Statistics" has been issued by USDA (USDA 1496-53)...USDA has purchased 10,500 tons of over-quota Puerto Rican sugar for Greece. (USDA 1440-53)...Hearing on wages and prices for Louisiana sugarcane set. (USDA 1481-53)

ABOUT MARKETING

The following addresses and publications, issued recently, may be obtained upon request. To order, check on this page the publications desired, detach and mail to the Production and Marketing Administration, U. S. Department of Agriculture, Washington 25, D. C.

Publications:

Consumer Purchases of Fruits and Juices in May 1953. June 1953. 16 pp. (PMA) (Processed)

Corn - Price-Support Loan Operations, 1933-1952. 18 pp. (PMA and Commodity Credit Corporation) (Processed)

Irish Potatoes, Price Support and Related Operations, Commodity Credit Corporation and Section 32 Funds, January 1, 1943 - June 30, 1952. 22 pp. (PMA and CCC) (Processed)

Sugar Statistics, Volume 1, June 1953. 304 pp. (PMA) (Processed)

Federal Regulation of Fluid Milk Marketing in the Clinton, Quad Cities, and Dubuque Marketing Areas. Marketing Research Report No. 37. April 1953. 165 pp. (PMA) (Printed)

Loss and Damage in the Transportation of Cantaloups, 1950-1952. (A Summary of Research Findings on Transit Damage, Loading Time, and Materials Costs Under Various Methods of Loading) May 1953. 23 pp. (PMA) (Processed)

Tests of One System of Dry Ice Refrigeration in the Transportation of Meat by Motortruck-Trailer (An Interim Report). June 1953. 20 pp. (PMA) (Processed)

Got a place to put it? (Check Your Corn Storage Now) PA-229. June 1953. Folder. (USDA) (Printed)

U. S. Standards for Grades of Canned Blackberries and Other Similar Berries Such as Boysenberries, dewberries, and Loganberries (Effective June 29, 1953) Second Issue. May 25, 1953. 12 pp. (PMA) (Processed)

* * * * *

(Be certain you have given us your name and full address when ordering statements or publications. Check only the individual items you wish.)

NAME _____

STREET _____

CITY _____ ZONE ____ STATE _____